

CLAIMS

What is claimed is:

1. A frame component for automatically and evenly tensioning a fabric about a partition panel, said frame component comprising:

5 a support element defining at least one cavity adapted to receive and support at least a portion of the partition panel;

a lockable element adapted to support at least a portion of the fabric, said lockable element extending from said support element and being moveable relative to said support element; and

10 an integral hinge portion defined between said support element and said lockable element, said integral hinge portion enabling said movement of said lockable element relative to said support element such that the fabric supported on said lockable element is automatically and evenly tensioned about the partition panel upon said movement of said lockable element.

15 2. A frame component as set forth in claim 1 wherein said at least one cavity defined by said support element is further defined as a first cavity adapted to receive and support a first partition panel, and a second cavity adapted to receive and support a second partition panel.

20 3. A frame component as set forth in claim 2 wherein said support element comprises a first segment and a second segment extending transversely from said first segment to define said first cavity that is adapted to receive and support the first partition panel.

4. A frame component as set forth in claim 3 wherein said support element further comprises a third segment extending transversely from said second segment, and a fourth segment extending transversely from said third segment to define said second cavity that is adapted to receive and support the second partition panel.

5 5. A frame component as set forth in claim 1 further comprising a flexible backing strip spanning said support element and said lockable element to protect the fabric from said integral hinge portion as said lockable element moves to tension the fabric about the partition panel.

6. A frame component as set forth in claim 5 wherein said flexible backing
10 strip is extruded onto said frame component to span said support element and said lockable element.

7. A frame component as set forth in claim 1 wherein said frame component is unitary.

8. A frame component as set forth in claim 1 wherein said lockable element
15 comprises a flat segment to maximize a surface area of said lockable element that is available for suitably supporting the portion of the fabric.

9. A frame component as set forth in claim 1 further comprising an adhesive disposed on said lockable element wherein said adhesive is adapted to retain the portion of the fabric on said lockable element.

20 10. A frame component as set forth in claim 1 further comprising a plurality of fastening stems extending from said lockable element wherein said fastening stems are adapted to extend through the fabric to retain the portion of the fabric on said lockable

element.

11. A frame component as set forth in claim 10 further comprising dome-shaped head portions disposed on said fastening stems wherein said dome-shaped head portions are adapted to extend through the fabric to retain the portion of the fabric on
5 said lockable element.

12. A frame component as set forth in claim 1 further comprising an engagement lip extending integrally from said support element and away from said lockable element, said engagement lip engaging said lockable element upon said movement to retain said lockable element in a tensioned configuration such that the
10 fabric is permanently tensioned about the partition panel.

13. A frame component as set forth in claim 12 further comprising a first locking mechanism disposed on said engagement lip, said first locking mechanism engaging said lockable element upon said movement of said lockable element.

14. A frame component as set forth in claim 13 further comprising a second
15 locking mechanism projecting from said lockable element for engaging said first locking mechanism of said support element upon said movement of said lockable element.

15. A frame component as set forth in claim 14 wherein said first locking mechanism is extruded onto said engagement lip of said support element, and said second locking mechanism is extruded onto said lockable element.

16. A frame component for automatically and evenly tensioning a fabric about a partition panel, said frame component comprising:

a support element adapted to support at least a portion of the partition panel;

a lockable element adapted to support at least a portion of the fabric, said
5 lockable element extending from said support element and being moveable relative to said support element;

an integral hinge portion defined between said support element and said lockable element, said integral hinge portion enabling said movement of said lockable element relative to said support element such that the fabric supported on said lockable element is
10 automatically and evenly tensioned about the partition panel upon said movement of said lockable element; and

a flexible backing strip spanning said support element and said lockable element to protect the fabric from said integral hinge portion as said lockable element moves to tension the fabric about the partition panel.

15 17. A frame component as set forth in claim 16 wherein said flexible backing strip is extruded onto said frame component to span said support element and said lockable element.

18. A frame component as set forth in claim 16 wherein said frame component is unitary.

20 19. A frame component as set forth in claim 16 wherein said lockable element comprises a flat segment to maximize a surface area of said lockable element that is available for suitably supporting the portion of the fabric.

20. A frame component as set forth in claim 16 further comprising an adhesive disposed on said lockable element wherein said adhesive is adapted to retain the portion of the fabric on said lockable element.

21. A frame component as set forth in claim 16 further comprising a plurality
5 of fastening stems extending from said lockable element wherein said fastening stems are adapted to extend through the fabric to retain the portion of the fabric on said lockable element.

22. A frame component as set forth in claim 21 further comprising dome-shaped head portions disposed on said fastening stems wherein said dome-shaped head
10 portions are adapted to extend through the fabric to retain the portion of the fabric on said lockable element.

23. A frame component as set forth in claim 16 further comprising an engagement lip extending integrally from said support element and away from said lockable element, said engagement lip engaging said lockable element upon said
15 movement to retain said lockable element in a tensioned configuration such that the fabric is permanently tensioned about the partition panel.

24. A frame component as set forth in claim 23 further comprising a first locking mechanism disposed on said engagement lip, said first locking mechanism engaging said lockable element upon said movement of said lockable element.

20 25. A frame component as set forth in claim 24 further comprising a second locking mechanism projecting from said lockable element for engaging said first locking mechanism of said support element upon said movement of said lockable element.

26. A frame component as set forth in claim 25 wherein said first locking mechanism is extruded onto said engagement lip of said support element, and said second locking mechanism is extruded onto said lockable element.

27. A frame assembly for a partition system, said assembly comprising:

(A) at least one partition panel;

(B) at least one fabric covering said partition panel; and

(C) at least one frame component that automatically and evenly tensions said

5 fabric about said partition panel, said frame component comprising;

(i) a support element defining at least one cavity, said cavity receiving and supporting at least a portion of said partition panel,

(ii) a lockable element supporting at least a portion of said fabric, said lockable element extending from said support element and being moveable
10 relative to said support element, and

(iii) an integral hinge portion defined between said support element and said lockable element of said frame component, said integral hinge portion enabling said movement of said lockable element relative to said support element such that said fabric supported on said lockable element is automatically and
15 evenly tensioned about said partition panel upon said movement of said lockable element.

28. A frame assembly as set forth in claim 27 wherein said at least one partition panel is further defined as a first partition panel and a second partition panel.

29. A frame assembly as set forth in claim 28 wherein said at least one cavity
20 defined by said support element of said frame component is further defined as a first cavity and a second cavity, said first cavity receiving and supporting at least a portion of said first partition panel and said second cavity receiving and supporting at least a portion

of said second partition panel.

30. A frame assembly as set forth in claim 29 wherein said support element of said frame component comprises a first segment and a second segment extending transversely from said first segment to define said first cavity that receives and supports
5 said first partition panel.

31. A frame assembly as set forth in claim 30 wherein said support element of said frame component further comprises a third segment extending transversely from said second segment, and a fourth segment extending transversely from said third segment to define said second cavity that receives and supports said second partition panel.

10 32. A frame assembly as set forth in claim 27 wherein said frame component further comprises a flexible backing strip spanning said support element and said lockable element of said frame component to protect said fabric from said integral hinge portion as said lockable element moves to tension said fabric about said partition panel.

33. A frame assembly as set forth in claim 27 wherein said frame component
15 is unitary.

34. A frame assembly as set forth in claim 27 wherein said frame component further comprises an engagement lip extending integrally from said support element and away from said lockable element, said engagement lip engaging said lockable element upon said movement to retain said lockable element in a tensioned configuration such
20 that said fabric is permanently tensioned about said partition panel.

35. A frame assembly as set forth in claim 27 wherein said at least one frame component is further defined as a plurality of frame components.

36. A frame assembly as set forth in claim 35 further comprising a plurality of corner locks engaging said frame components to interconnect said frame components and establish a rectangular-shaped frame assembly.

37. A frame assembly as set forth in claim 36 wherein said corner locks
5 engage said support elements of said frame components to interconnect said frame components and establish said rectangular-shaped frame assembly.

38. A frame assembly as set forth in claim 36 wherein said plurality of frame components is further defined as first, second, third, and fourth frame components.

39. A frame assembly as set forth in claim 38 wherein said plurality of corner
10 locks is further defined as first, second, third, and fourth corner locks wherein;

said first corner lock engages said support elements of said first and second frame components,

said second corner lock engages said support elements of said second and third frame components,

15 said third corner lock engages said support elements of said third and fourth frame components, and

said fourth corner lock engages said support elements of said fourth and first frame components,

20 to interconnect said frame components and establish said rectangular-shaped frame assembly.

40. A frame assembly as set forth in claim 35 further comprising a backing plate mounted to said support elements of said frame components, said backing plate

spanning across said partition panel to reinforce said partition panel and improve rigidity in said frame assembly.

41. A frame assembly as set forth in claim 27 wherein said frame component further comprises an adhesive disposed on said lockable element to retain said portion of said fabric on said lockable element.

42. A frame assembly as set forth in claim 27 wherein said frame component further comprises a plurality of fastening stems extending from said lockable element and through said fabric to retain said portion of said fabric on said lockable element.

43. A frame assembly as set forth in claim 42 wherein said frame component further comprises dome-shaped head portions disposed on said fastening stems and extending through said fabric to retain said portion of said fabric on said lockable element.

44. A frame assembly for a partition system wherein said frame assembly automatically and evenly tensions a fabric about a partition panel, said assembly comprising:

(A) a plurality of frame components for automatically and evenly tensioning
5 the fabric about the partition panel, each of said frame components comprising;

(i) a support element defining at least one cavity adapted to receive and support at least a portion of the partition panel,

(ii) a lockable element adapted to support at least a portion of the fabric, said lockable element extending from said support element and being
10 moveable relative to said support element, and

(iii) an integral hinge portion defined between said support element and said lockable element, said integral hinge portion enabling said movement of said lockable element relative to said support element such that the fabric supported on said lockable element is automatically and evenly tensioned about
15 the partition panel upon said movement of said lockable element; and

(B) a plurality of corner locks engaging said frame components to interconnect said frame components and establish a rectangular-shaped frame assembly; and

(C) a backing plate mounted to said support elements of said frame
20 components wherein said backing plate is adapted to span across the partition panel to reinforce the partition panel and improve rigidity in said frame assembly.

45. A frame assembly as set forth in claim 44 wherein said at least one cavity

defined by said support element of each of said frame components is further defined as a first cavity adapted to receive and support a first partition panel, and a second cavity adapted to receive and support a second partition panel.

46. A frame assembly as set forth in claim 45 wherein said support element of
5 each of said frame components comprises a first segment and a second segment
extending transversely from said first segment to define said first cavity that is adapted to
receive and support the first partition panel.

47. A frame assembly as set forth in claim 46 wherein said support element of
each of said frame components further comprises a third segment extending transversely
10 from said second segment, and a fourth segment extending transversely from said third
segment to define said second cavity that is adapted to receive and support the second
partition panel.

48. A frame assembly as set forth in claim 44 wherein each of said frame
components further comprises a flexible backing strip spanning said support element and
15 said lockable element to protect the fabric from said integral hinge portion as said
lockable element moves to tension the fabric about the partition panel.

49. A frame assembly as set forth in claim 44 wherein said frame components
are unitary.

50. A frame assembly as set forth in claim 44 wherein each of said frame
20 components further comprises an engagement lip extending integrally from said support
element and away from said lockable element, said engagement lip engaging said
lockable element upon said movement to retain said lockable element in a tensioned

configuration such that the fabric is permanently tensions about the partition panel.

51. A frame assembly as set forth in claim 44 wherein said corner locks engage said support elements of said frame components to interconnect said frame components and establish said rectangular-shaped frame assembly.

5 52. A frame assembly as set forth in claim 33 wherein said plurality of frame components is further defined as first, second, third, and fourth frame components.

53. A frame assembly as set forth in claim 52 wherein said plurality of corner locks is further defined as first, second, third, and fourth corner locks wherein;

said first corner lock engages said support elements of said first and second frame
10 components,

said second corner lock engages said support elements of said second and third frame components,

said third corner lock engages said support elements of said third and fourth frame components, and

15 said fourth corner lock engages said support elements of said fourth and first frame components,

to interconnect said frame components and establish said rectangular-shaped frame assembly.

54. A frame assembly as set forth in claim 44 wherein each of said frame
20 components further comprises an adhesive disposed on said lockable element wherein said adhesive is adapted to retain the portion of the fabric on said lockable element.

55. A frame assembly as set forth in claim 44 wherein each of said frame

components further comprises a plurality of fastening stems extending from said lockable element wherein said fastening stems are adapted to extend through the fabric to retain the portion of the fabric on said lockable element.

56. A frame assembly as set forth in claim 55 wherein each of said frame
5 components further comprises dome-shaped head portions disposed on said fastening stems wherein said dome-shaped head portions are adapted to extend through the fabric to retain the portion of the fabric on said lockable element.